

WEB APPLICATION DEVELOPMENT USING NODEJS (Tutorial 1)

Exercise 01

HTML Document:

```
<input class="col-8" type="text" id="imageUrl" />
<button type="button"
    class="btn btn-primary ml-3"
    onclick="loadImage()">Load</button>

<a download="myimage.jpg" id="imageLink">
    <img id="image" style="max-width: 50%;"/>
</a>
```

XMLHttpRequest:

```
let xhr = new XMLHttpRequest();
xhr.addEventListener('load', e => {
    let { response } = xhr;
    ...
})
```

```
})  
xhr.open('GET', url, true);  
xhr.responseType = "blob";  
xhr.send();
```

Display & download blob:

```
let image = document.getElementById(...)  
let { response } = xhr;  
let srcBlob = URL.createObjectURL(response);  
image.src = srcBlob  
imageLink.href = srcBlob
```

Exercise 02

Bootstrap table:

https://www.w3schools.com/bootstrap4/bootstrap_tables.asp

Load by Ajax:

```
let xhr = new XMLHttpRequest();  
xhr.addEventListener('load', e => {  
    let { response } = xhr;  
    ...  
})
```

```
xhr.open('GET', SERVER_URL, true);  
xhr.responseType = "json";  
xhr.send();
```

Load by Fetch:

```
fetch(SERVER_URL)  
  .then(res => res.json())  
  .then(json => {  
    ...  
  }).catch(e => {  
    console.log(e);  
  })
```

HTML Document:

document.getElementById(...)

document.createElement(...)

parentElement.appendChild(childElement)

Exercise 03

Define a Promise method:

```
function loadImagePromise(link) {  
  return new Promise((resolve, reject) => {  
    return resolve(...)  
    ....  
    return reject(...)  
  });  
}
```

Use Promise method:

```
async function loadImage() {  
  let data = await loadImagePromise(...)  
  image.src = data  
  ...  
}
```

```
loadImagePromise(...)  
  .then(data => {  
    image.src = data  
    ...  
  })
```



Exercise 04

Write data object/array into localStorage/sessionStorage:

```
let json = JSON.stringify(obj);  
window.localStorage.setItem(key, json);  
window.sessionStorage.setItem(key, json);
```

Read data from localStorage/sessionStorage:

```
let json = localStorage.getItem(key);  
let obj = JSON.parse(json);
```